



Pennsylvania Department of Environmental Protection

**2 East Main Street
Norristown, PA 19401**

November 14, 2008

Southeast Regional Office

Phone: 484-250-5960

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Ms. Dina Toto
Remediation Engineer
Sunoco, Inc.
10 Industrial Highway
Lester, PA 19029

Re: ECP – Special Projects
AOI No. 8 Technical Review Comments
Water Quality Consent Order
IW/Operations Sunoco Point Breeze Refinery
NPDES Permit No. PA0012629
Passyunk Avenue
City of Philadelphia

Dear Ms. Toto:

The Pennsylvania Department of Environmental Protection (Department) has received and reviewed the Site Characterization Report AOI 8 dated September 30, 2008. This document was prepared by Langan Engineering and Environmental Services on behalf of Sunoco Refining and was received in our Norristown office on September 30, 2008.

The Department's comments are as follows:

1. A Site-Specific Standard has been proposed for surface soils in the North Yard. Analytical data collected in the 0.0 to 2.0-foot interval shows contaminants of concern (COCs) to be Benzene, Benzo(a)pyrene, and Naphthalene. Appendix F contains the calculations used to support this Demonstration of Attainment. A closer examination of the data in Table F-5 used to calculate the cumulative risk for Benzo(a)pyrene seems to indicate that the total excess cancer cumulative risks would be 1.67×10^{-4} . Unfortunately, this number is outside our Act 2 acceptable risk range. Please revisit this part of the assessment.
2. Section 2.4 should include a description of the Jackson Street Sewer, including its dimensions, purpose, and construction. The incidental role of the sewer as a transport mechanism for contaminants from the refinery must not be ignored. The sewer can transport NAPL or contaminated water from AOI-8 to the Schuylkill River, and it can also transport vapor from AOI-8 either to the west (to the River area) or to the east (to the neighborhoods in the vicinity of 29th Street, between Vare Avenue and McKean Street.)

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3. Section 5.2 should include more information about the Jackson Street Sewer Total Fluids Recovery System, including when it was constructed, the original purpose, and some information about its operation and success.
4. Section 5.4 should include more information about the North Yard Bulkhead/No. 3 Tank Farm Separator Total Fluids Recovery System, including when it was constructed, the original purpose, and some information about its operation and success.
5. Section 6.5 includes a discussion of vapor control efforts in the Jackson Street Sewer using the water curtain, but it includes no analysis of vapor migration and no assessment of whether or not the water curtain is actually effective. The Department continues to receive reports from residents in the neighborhood adjacent to this sewer complaining about petroleum odors that emanate from the sewer. Based on this history of mysterious and chronic petroleum odor, the Department remains concerned about the possibility that the refinery property, AOI-8, is a source of this nuisance odor. The AOI-8 Site Characterization cannot be considered complete unless it contains an evaluation of the migration of nuisance odors and/or vapors from the site via the sewer.
6. Section 7.6 is incomplete. It should discuss the Jackson Street Sewer as a pathway for contaminants in groundwater to the Schuylkill River. The observed presence of hydrocarbons in the inside walls of the sewer strongly suggests that some such transport occurs. It also should discuss the role of the sewer as a pathway for vapor migration, particularly into the residential neighborhoods in the vicinity of South 29th Street, between Vare Avenue and McKean Street.

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If you have any questions or need further information regarding this matter, please contact Ayman Ghobrial at 484-250-5781.

Sincerely,



Ayman L. Ghobrial, P.G.
Licensed Professional Geologist
Environmental Cleanup

cc: Mr. O'Neil
Mr. Payne, P.G.
Mr. Burke
— Mr. Sneath —
Ms. Warren
Ms. Costello, P.G. - Langan Engineering
City of Philadelphia
Mr. Herr, P.G. - RT Environmental Services, Inc.
Mr. Brown, P.E. - RT Environmental Services, Inc.
West Chester Borough
Chester County Courthouse
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